Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

3

Applicant's or agent's file reference PAT98151PCT	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/EP99/10242	International filing date (*day/month/year*) 21 December 1999 (21.12.99)	Priority date (*day/month/year*) 24 December 1998 (24.12.98)
International Patent Classification (IPC) or national classification and IPC B05D 7/02		
Applicant BASF COATINGS AG		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of ___ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
29 June 2000 (29.06.00)	28 September 2000 (28.09.2000)
Name and mailing address of the IPEA/EP Facsimile No.	Authorized officer Telephone No.

Form PCT/IPEA/409 (cover sheet) (January 1994)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/EP99/10242

I. Basis of the report

1. This report has been drawn on the basis of (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

☐ the international application as originally filed.

☒ the description, pages 1-35, as originally filed,
pages _____, filed with the demand,
pages _____, filed with the letter of _____,
pages _____, filed with the letter of _____.

☒ the claims, Nos. 1-12, as originally filed,
Nos. _____, as amended under Article 19,
Nos. _____, filed with the demand,
Nos. _____, filed with the letter of _____,
Nos. _____, filed with the letter of _____.

☐ the drawings, sheets/fig _____, as originally filed,
sheets/fig _____, filed with the demand,
sheets/fig _____, filed with the letter of _____,
sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

☐ the description, pages _____
☐ the claims, Nos. _____
☐ the drawings, sheets/fig _____

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No
PCT/EP 99/10242

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-12	YES
	Claims		NO
Inventive step (IS)	Claims	1-12	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-12	YES
	Claims		NO

2. Citations and explanations

This report makes reference to the following international search report citations:

D1: DE-A1-44 28 641,

D2: WO-A-96/05235.

Novelty and inventive step (PCT Article 33(2) and (3))

Independent Claims 1, 2, and 3 each pertain to a multilayer system, a method for producing said multilayer system as well as a reactive system. An essential feature is the use of mesomorphic polyelectrolyte complexes in combination with a further layer or a coating substance.

Mesomorphic polyelectrolyte complexes, used to produce films, foils, fibers, moulded components, and coatings, are already described in the prior art. Therein it concerns mesomorphic complexes composed of both anionic and cationic polyelectrolytes and cationic and/or anionic surfactants. However, these systems do not exhibit sufficient resistance with respect to water, organic and inorganic acids and bases, and organic solvents. Furthermore, no multilayer coatings, moulded parts, or

laminates are described.

Therefore, the problem addressed by the present invention is to provide new multilayer systems consisting of at least one layer of mesomorphic polyelectrolyte complexes. Additionally, the aim is to obtain between the individual layers good cohesive characteristics, a high degree of hardness, and an increased resistance to water, acids, bases, and other solvents.

Document D1 likewise pertains to mesomorphic polyelectrolyte complexes and their use, yet it does not clearly indicate the multilayer system specified in the present application.

In this connection, D2 only generally refers to the possibility of producing films or layers (see second paragraph on page 7, for example).

Therefore, the present Claims 1, 2, and 3 fulfil PCT requirements.

Dependent claims

Dependent Claims 4-11 and Claim 12 represent preferred embodiments of the independent claims and therefore likewise fulfil PCT requirements.